

Abstract of the Disclosure

A technique for imparting substantial break-once-run-everywhere (BORE) resistance to passive and active software objects, and for controlling access and use of resulting protected objects by a client computer (400). Specifically, a relatively large number, n, of identical watermarks (1720) are embedded throughout a software object (1700), through use of n different secret watermark keys to form a protected object, with each key defining a pointer to a location in the protected object at which a corresponding watermark appears. Once a user has downloaded a protected object through a client computer, the user transacts with a publisher's web server (335) to obtain an electronic license, cryptographically signed by the publisher to an enforcer (600, 600') located in that client computer, which specifies rights, which the publisher accords, for accessing and using this object, to this computer and an "expected" value of a parameter contained in the watermarks. The enforcer is equipped with only one of the n watermark keys. Whenever the client computer attempts to access a file containing the protected object, the enforcer examines the object using its secret watermark key. If the object contains a watermark appearing at a location specified by the enforcer's watermark key, a digital rights management system (456) executing in a client operating system (454) accesses a license database (570) to determine whether a signed license made to the enforcer and linked, via the publisher's cryptographic signature, to this protected

30 object resides in that database. If no such license
exists, the enforcer inhibits any further access to the
object. Otherwise, the enforcer determines whether: the
"expected" parameter value matches an actual value for
the same parameter detected in a watermark contained in
35 the object, and the license is signed by the vendor whose
identification is embedded in the watermark; and, if so,
permits access to the object in accordance with the
rights specified in the license.